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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,052	03/16/2004	Bruce Edward Wade	1001.005	1199

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BRENC LAW
47 BANKS ROAD
SIMSBURY, CT 06070

EXAMINER

NAKARANI, DHIRAJLAL S

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/801,052

Applicant(s)

WADE ET AL.

Examiner

D. S. Nakarani

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-21 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/04, 9/04, 5/05, 8/05
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shichiri et al (U. S. Patent 6,387,516 B2) in view of Cartier et al (U. S. Patent 4,952,457) and Lavin et al (U. S. Patent 3,271,235).

Shichiri et al a plasticized polyvinyl butyral interlayer and a laminated glass made with the said interlayer. Shichiri et al disclose addition of an adhesion control additives comprising alkali metal salts and alkaline earth metal salts (claims 8-18). Shichiri et al' alkali metal salts include salts of acetic acid (Col. 12, lines 65-68). Shichiri et al disclose alkaline earth metal salt such as magnesium 2-ethylbutyrate (Col. 13, lines 8-10). Shichiri et al suggest total amount of adhesion control agent from 0.01 to 0.2 wt parts per hundred parts polyvinyl butyral (Col. 15, lines 15-26). Shichiri et al suggest keeping concentration of sodium less than 50 ppm and potassium concentration less than 100 ppm. Shichiri et al fail to disclose claimed titer values.

Cartier et al disclose a mixture of moisture sensitive monovalent salt such as sodium acetate or potassium acetate providing titer between 5 to 30 and alkaline earth metal salt such as magnesium 2-ethyl butyrate providing titer about 5 to 40 (Col. 5, lines

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12-63). Cartier et al suggest concentration of adhesion control agent from 0.01 to 0.1 wt% (Col. 5, lines 64-65).

Lavin et al disclose that a mixture of a potassium acetate and metal salt such as magnesium acetate improve impact strength of the glass compared to single either potassium acetate or magnesium acetate (see Tables I, II and III). Thus the mixture shows synergistic effect.

Therefore it would have been obvious to a person of ordinary skill in the art at the time of this invention made would have found it obvious to utilize disclosures of Cartier et al and Lavin et al in the invention of Shichiri et al to optimize impact strength of the glass laminate by using synergistic mixture of alkali metal salts and alkaline earth metal salts.

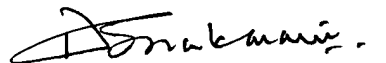
3. Receipt of Information Disclosure Statements filed March 16, 2004, September 20, 2004, May 26, 2005 and August 4, 2005 is acknowledged. All documents have been made of record.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. S. Nakarani whose telephone number is (571) 272-1512. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



D. S. Nakarani
Primary Examiner
Art Unit 1773

Dsn
February 20, 2006.